

Library & Information Science Library
University of Toronto



3 1761 03245527 1

Books and libraries

Journal of instruction in their
use for colleges

John Adams Howe

025.5677
L913B

Library School
Emory University

Emory University, Ga.

Books and Libraries

A Manual of
Instruction in Their Use
for Colleges


Discarded

John Adams Lowe, M. A.

Agent, Free Public Library Commission of Massachusetts
Formerly, Librarian of Williams College

Boston, Massachusetts
The Boston Book Company
1917

Books and Libraries



Digitized by the Internet Archive
in 2014

Books and Libraries

A Manual of
Instruction in Their Use
for Colleges

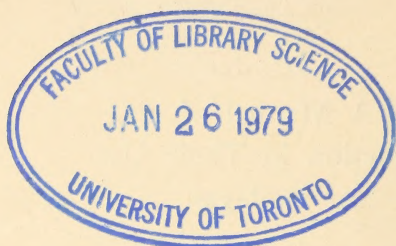
John Adams Lowe, M. A.

Agent, Free Public Library Commission of Massachusetts
Formerly, Librarian of Williams College

~~CARNEGIE LIBRARY OF ATLANTA~~

LIBRARY SCHOOL
EMORY UNIVERSITY
GEORGIA

Boston, Massachusetts
The Boston Book Company
1916



Copyrighted by
THE BOSTON BOOK CO.
Published November, 1916.

025.
5677
L913B

LIBRARY SCHOOL
EMORY UNIVERSITY
GEORGIA

Preface

This manual is the outcome of some lectures delivered to the Freshman courses in Rhetoric at Williams College.

The library should be throughout the course of an undergraduate a source of information and inspiration, whether his interest lies in philosophy, science, literature or history. The efficiency of his course lessens with any delay in grasping its meaning and use. Every Freshman should be required to take a course in which he receives definite practical instruction in the handling of library tools. It may be given by the librarian as an integral part of the work required for a degree, or it may be given in conjunction with some required course.

To put in the hands of the student printed material which may be of service to him in meeting such a requirement, this manual has been prepared. If classroom work followed with practical problems in the library is not offered, it is my hope that these chapters may be helpful to him who has sufficient ambition to train himself in book-using skill. An investment of effort of this sort at the outset of a college course will yield abundant returns later in the saving of time and energy, and in a satisfactory handling of all curriculum assignments.

While there is nothing especially original in the material presented, as it is the common information of trained librarians, I trust that the presentation may be sufficiently in a new field to warrant the work undertaken. None of the teaching outlines already in print, excellent as each is, seems to meet exactly the scope and purpose of this volume.

PREFACE

To George Burwell Dutton, Ph.D., Assistant Professor of English Literature in Williams College, I am deeply indebted for valuable suggestions and criticism made after a careful reading of the manuscript.

J. A. L.

CONTENTS

CHAPTER	PAGE
I. THE CATALOGUE	9
II. CLASSIFICATION AND SHELF ARRANGEMENT OF BOOKS	24
III. MAGAZINE INDEXES	33
IV. GENERAL REFERENCE BOOKS	43
V. SPECIAL REFERENCE BOOKS	51
VI. INVESTIGATING A SUBJECT	64

BOOKS AND LIBRARIES

Chapter I

THE CATALOGUE

When you visit a strange city and wish to call upon a citizen at his house, which is unknown to you, would you go from house to house on the principal street seeking him? In all probability you would look in the city directory and turn at once through the alphabetical arrangement to find the name of the person. His location in the city, his street and number, would there be indicated, and having learned it you could go directly to his house.

If one of your instructors sent you to the library to look up material on the problem of sanitation on the Canal Zone, you might be referred to Bishop's *Panama Canal*. In all probability you would not take the clumsy method of turning the pages with the hope of stumbling upon just that for which you are looking, but would turn at once to the index in the back of the book and look down the columns until you found "sanitation." Here is given information which would enable you to turn immediately to the pages referred to.

In the same fashion, suppose you wished to find in the library President Fitch's *College course and the preparation for life*. You do not know where it is kept. You would not search the shelves, shelf after shelf, any more than you hunted through the streets for a person's house, nor through the pages of a book to find an assigned topic. Just as you consulted the directory in one case and the index in the

other, you will find a specific book by consulting the index to the library collection, that is the card catalogue.

Formerly library catalogues were printed in books, but this method has been abandoned as inefficient. A catalogue thus prepared is out of date as soon as it appears for entries of new books added to the library may not be indicated after the printing is completed. The great catalogues of the British Museum, Peabody Institute, the Boston Athenaeum and Harvard College Library, in book form, for example, are being superseded by card catalogues. If a person who is accustomed to using an index to a book or a printed book catalogue remembers that a card catalogue is practically the same thing, having each individual entry on a separate card instead of on a line of a page, he will have little difficulty with the card arrangement. To make the filing of cards more convenient, the top line is reserved to bring out the distinctive thing for which the card stands.

The primary purpose of the catalogue is to make available all the resources of the library. It stands ready to answer a multitude of questions, but the most common which are brought to it are: "What books by a certain author are in the library?", "Who wrote a book by a given title?" and "What books on a given subject are available?"

These are answered by three kinds of cards, called author cards, title cards and subject cards because of their headings or the words, phrase or name at the top of the card. The purpose of the catalogue is accomplished in a small library where only the simplest entries are necessary by providing these three cards for each book in the library collection, but in a large library where demands of a scholarly and reference nature are made of the catalogue it is necessary to insert a great many additional varieties of these three kinds of cards.

The author card in most catalogues presents the most detailed information. For an example, if you wished to find out whether the library contained *Engineering mathematics*, written by Steinmetz, you would consult the cards in the catalogue tray containing the S's, and you would find this author card:

510 St3e	Steinmetz, Charles Proteus, 1865- Engineering mathematics: a series of lectures delivered at Union college. New York, Mc- Graw, Hill book co., 1911. 292p. 24cm.
-------------	---

(Card for author)

Many college librarians are using the cards printed by the Library of Congress, Harvard College Library, Chicago Public Library, the John Crerar Library and others, all of which follow, more or less, a standard and uniform arrangement of material presented thereon. Others type-write their cards and still others are writing them. Some use a card 3" x 5", while others use a narrower card, but in most cases the general principles here discussed will be found to be common to all. In addition to the author entry on the author card on the top line, this information appears on the card. The book number 510 St3e is found in the upper left hand corner, and indicates the location of the particular book on the shelf. This is for the reader's use in asking for the book at the loan desk or in searching for it himself on the shelves. Its construction and the fact that each book has an individual mark will be discussed when we consider the classification of books. On the line below the author follows the title of the book as it appears on the title page. The data inserted on the card after the title give certain information about the book: the place of the publication (New York), the publisher (McGraw-Hill), and the date on which it was printed (1911), the number

of pages it contains (292) and its size (24cm.) usually indicated in centimeters. Frequently librarians have used 32°, 24°, 18°, 12°, 8°, 4°, to indicate size. This is not as accurate as the use of centimeters in showing the size of a book. A duodecimo volume is indicated by 12, that is, one in which the sheets of paper making it up have been folded so as to make twelve pages from the sheet. If paper manufacturers always made a standard size, then the books thus folded would be practically the same size, but as such is not the case this becomes only a rough indication of the size of a book. The figures in centimeters indicate the height of the book as it stands on the shelf.

The data indicated on cards as enumerated above seems to be essential to a college student. The place of publication has importance in suggesting to some extent the nationality of the author and in indicating thereby his point of view. The date assists in estimating at a glance the value of the information contained in the book. A volume on harbor defence published in 1870 and even in 1910 would have little value today other than that of historic interest. Frequently you will find after the title of a book the abbreviations, "new ed." (new edition), or "new ed. rev." (new edition revised). This is important if there is more than one edition and it is mentioned in order that a reader may find the particular edition he desires. The number of volumes and pages is helpful. If you wish a quick survey of English literature you would not select the *Cambridge history of English literature*, now in eleven volumes.

We have been discussing the simplest case of an author card, that in which one person's name appears on the title page of the book as its author. There are several other more complicated forms which are closely allied to author cards. These are: joint authors, impersonal authors,

authors brought out analytically, editors, translators and compilers.

In the case of a joint author, or secondary author as he is sometimes called, that name is put at the top of the card over the primary author's name and the rest of the data given as stated above. It is to be remembered that the catalogue contains author cards not only for persons, but for societies, bureaus of the state and federal governments, etc., which issue bulletins, publications, proceedings and transactions and are therefore considered authors. Thus we shall find the Massachusetts Historical Society entered as the author of the *Proceedings* of the society; the United States Bureau of Education as author of its *Bulletin*; and an infinite number of similar cases.

If the catalogue is going to show with any completeness the resources of the collection, it is essential that many books shall be so analyzed that an author writing a part of the volume shall be represented. In this way, just as every book has an author, subject and title card, some books have what is called an analytical author, subject and title card for several parts of it. You have been directed to read an essay, "Uses of great men," by Emerson, and you know that it is not long enough for an entire book. Looking in the card catalogue under Emerson's name you find this card, which indicates that this particular essay is to be found in Brewer's *World's best orations*. The notation or book number is that of the volume containing this essay as well as other orations.

815	Emerson, Ralph Waldo, 1803-82.
B	Uses of great men. (In Brewer, D. J., ed. <i>The world's best orations</i> . 1901.)

(Card for author analytic)

Books are always listed under the author. But perhaps a particular book is better known to you by an editor, a compiler or a translator. In this case you would expect to find information about the book under that name. To provide for this the catalogue contains cards similar in form to author cards having as a heading, superimposed over the author's name, the name of the editor in one case, the translator in another, and the compiler in the third, followed by the abbreviation "ed.", "comp.", "trans.". For example, you have been instructed to read *Henry IV*, for an assignment, using the Rolfe edition. Of course you could consult all the editions of plays listed under Shakespeare's name and hunt until you found the volume containing *Henry IV*, but a more direct procedure would be to turn to the catalogue containing the R's and look under Rolfe, thus:

822.3 R	Rolfe, William James, ed. Shakespeare, William, 1564-1616. History of King Henry the Fourth. 2 vols. ed. by W. J. Rolfe. N. Y., 1880. (English classics)
------------	--

(Card for editor)

Suppose you wished to quote some poem which you might reasonably hope to find in the *Oxford Book of Victorian verse*, which is compiled by Quiller-Couch. You will find that the card catalogue has a card which will direct you immediately to the desired volume:

821 Q4	Couch, Sir Arthur Thomas, Quiller-, comp. The Oxford book of Victorian verse, chosen by Arthur Quiller-Couch. Oxford, The Clarendon press, 1913. XV, 1023. 19cm.
-----------	---

(Card for compiler)

And again, if one of your instructors insists on your using a particular translation, if you are to use any, and he designates the volume, in all probability you will find that it is indicated in the card catalogue under the translator's name :

874.5	Bennett, Charles Edwin, tr.
H78b	Horatius Flaccus, Quintus.
	Horace, the Odes and Epodes, with an English translation, by C. E. Bennett. London, W. Heinemann, 1914. 43op. 17cm.

(Card for translator)

In many cases the real value of a particular edition of an author's work is the editorial work done on it. Frequently a compilation is of such a nature that its compiler becomes virtually its author. In the case of classics and translations it is essential to enumerate the translators in order to distinguish between the different translations.

So much for author cards. If you do not remember the author of a particular book and therefore cannot locate it in the card catalogue by the author card, you still have a chance of finding it. The catalogue contains title cards. The author is unknown to you, but the book you desire is called *Engineering mathematics*. If you turn over the cards in the tray containing the E's in the catalogue you will probably find this one :

510	Engineering mathematics, 1911.
St3e	Steinmetz, Charles Proteus, 1865-

(Card for title of book)

This card indicates the book number so that you may find the volume itself, and it also designates on the second line the author so that you may consult the author card for further details. If you turn to that part of the catalogue

containing the S's you may discover all the other books in the library written by the same man. This is called a title card because the title of the book stands at the top of the card.

Similar to author analytical cards are title analyticals. A story, an essay or a play which appeared in a book of collected stories, essays or dramas, is frequently brought out in the catalogue so that you may find it immediately. If the quaintness of the *Workhouse ward* charmed you at the theatre and you wished to read *The rising of the moon*, you would turn to the catalogue under that title and find that it is Lady Gregory's and appears as a part of a book with a different title.

822	Rising of the moon.
D56	Gregory, A. B., Lady. (In Dickinson, Thomas Herbert, 1877- ed. Chief contemporary dramatists). Boston, Houghton, Mifflin co., 1915.

This form is sometimes used:

839	Miss Julia. 1913.
St8	Strindberg, August, i. e. Johan August. Plays. 2d series: There are crimes and crimes, Miss Julia, The stronger, Creditors, Pariah; translated by E. Björkman. N. Y., Scribner's, 1913.

(Title of play forming part of a volume of plays)

Probably one of the most important uses that is made of the catalogue is that of consulting it to find out what the library contains on a certain subject. Just as cards have been made for authors and titles of books there have been inserted in the catalogue cards indicating the subject or subjects treated by each book. Thus:

510	Mathematics.
St3e	Steinmetz, Charles Proteus, 1865- Engineering mathematics. 1911.

(Underscored word in red)

(Card showing subject of book)

Since a subject card is made for every book except fiction, essays, poetry and a few similar classes, all the cards filed together indicate at once the books in the library on that subject. Similar to the author and title cards for analyticals we have subject analyticals.

There is still another class of cards found in the catalogue called reference cards. Frequently writers assume a pseudonym, but librarians insist on listing books under the real name of the author. You will be assisted to find the form used in the library by a reference card from the pseudonym to it.

Twain, Mark, pseud. See Clemens, Samuel Langhorne.

(Reference from pseudonym to real name)

Again, if you do not find exactly what you need under the subject you have in mind, you may perhaps find it under a related subject to which the catalogue directs you. These cards are usually placed in the catalogue at the end of all the cards on the original subject.

<u>Fraternities</u> , see also <u>Greek letter societies</u> .

(Underscored words in red)

(Reference from one subject to related subject)

The user of a catalogue cannot be expected to know which of the two names for the same thing a library may elect to

use. It would be proper to put all books dealing with wit and humor under the heading, although it would be confusing to use both. A cross-reference card is inserted directing the attention of the user from the unusual and unused form to that used in the particular library.

Jests, see
Wit and humor.

(Reference from heading not used to accepted form)

Thus different kinds of cards appear in the catalogue to indicate the resources of the library. In general they are author, subject and title cards. Because of their similarity in function to authors, corporate bodies, societies, states and governments, editors, compilers and translators are treated accordingly. Analytical cards bring out material appearing as parts of books under authors, subjects and titles. Reference cards direct the attention from one subject to an allied subject, or from one form not used to one that is.

When we come to consider the arrangement of the cards in the catalogue we find that there are several methods. The form gives the catalogue its name. Some are made having three alphabets: one for the author cards, one for the subject cards and one for the title cards. Each of these is named according to its characteristic card. In another form the cards are filed in the order that the books stand on the shelves, and this is called a class catalogue. In each case all the cards are arranged in the catalogue trays according to the heading on the top line. Probably that which is the most convenient and most generally used is the dictionary catalogue, so called because all the headings, whether author, subject or title, are filed alphabetically just as the words in a dictionary are arranged. The cards

headed by the name of an author are alphabetically arranged according to the title of the book. The cards bearing the same subject are alphabetically arranged according to the authors of the books represented. The cards are so arranged that the trays read down in vertical tiers and the cards in each tray read from the front to the back. Guide cards, inserted at short distances, are plain cards with words printed on projecting labels, filed alphabetically among the other cards to show a heading distinctly.

The use to which a student puts a card catalogue varies with the individual. He may require of it only to answer the three elementary questions as to whether the library has a book by a certain author, one having a given title, or one dealing with a particular subject. To the casual browser satisfying himself with an occasional volume selected at random, the use of the catalogue seems unnecessary. He should, however, consult it in connection with whatever he reads to discover the other resources of the library along the same line. A careful reader, a studious lover of books, will find the catalogue of infinite value. The scientific investigation of a subject demands an exhaustive use of the card catalogue. This shows in a compact form the resources of the collection although the books themselves are widely separated on the shelves. For the making of a bibliography, a list of the works of an author, or of the books and literature written on a subject, the catalogue is indispensable. The same is true of checking up a bibliography already made to ascertain what specific material is available in the library you are using.

In connection with the work of the curriculum it is most essential. All too frequently students rely too much on the work that has been mapped out for them by their instructors and go no farther than assigned readings or

collateral studies. I have known students in a college where the departmental library system is developed not to have entered the main library for a whole half of a college year to consult the catalogue of all books owned by the college. They limited their study, and in many cases their reading, to what they found on the assigned section of a reference shelf of a particular course. When they had work in a course where assignments of reading were not so carefully prepared in "pill form" for them they were lost. Perhaps you are assigned a topic for a theme, "Choosing a vocation" or "Pinero's contribution to the English drama." The catalogue will assist you. For a term thesis or report you may be required to present as a preliminary step a list of the material you are going to use in writing it. Suppose, for example, you were to write on "Shakespeare's London" and you were required to prepare such a list of references and were allowed to use only the card catalogue. Would you expect to produce much of a list of books on the subject? Fifteen minutes' use of the card catalogue produced the following:

Shakespeare's London: this suggested first that I consult the cards under Shakespeare, and passing over the plays and the discussions on authorship, etc., etc., these struck my attention:

Drake, N. Shakespeare and his time.

Goadby, E. The England of Shakespeare.

Goadby, E. Shakespeare's time.

Rolfe, W. J. Shakespeare, the boy, with sketches of the home and school life, the games and sports, manners and customs, and folk-lore of the time.

Stephenson, H. T. The Elizabethan people.

Stephenson, H. T. Shakespeare's London.

Warner, C. D. The people for whom Shakespeare wrote.

and the next subject suggested by the assigned title is

London. The titles under the heading, London, Description, promising of having anything in them for this particular purpose were these:

Hutton, L. Literary landmarks of London.

Lang, E. M. Literary London.

Shelley, H. C. Inns and taverns of London.

and an examination of each of these proved that they contained many interesting items for the matter in hand. Of course London naturally suggests that perhaps something of help would be found under Stratford-on-Avon, and sure enough, I found:

Goadby, E. A pilgrimage to Stratford-on-Avon.

Howells, W. D. The seen and unseen at Stratford.

Lee, S. L. Stratford-on-Avon: from the earliest times to the death of Shakespeare.

These have suggestions about the London of the time and tell much of the daily life of the playwright. It is only one step to think that it might be well in the theme to have something to say about the country in which Shakespeare's London was situated, and among 160 cards headed England, Description, I made a note of one:

Winter, W. Shakespeare's England.

This is an account of two trips which Mr. Winter made to England in 1877 and 1882, but they are suggestive as giving a modern aspect of the ancient scenes, interpreted by a dramatic critic. Going still one step further, under Europe, Social life, I discovered:

Moryson, F. Shakespeare's Europe . . . being a survey of the condition of Europe at the end of the 16th century.

No statement about the London of the time of Shakespeare would be satisfactory if it did not have something to offer

about the theatres of the day. Well, the card catalogue has something to suggest to us under the heading Theatres, England:

Albright, V. E. The Shakespearian stage.

Collins, J. C. Posthumous essays: number one being entitled, Shakespearian theatres.

Sullivan, M. Court masques of James I: their influence on Shakespeare and public theatres.

and turning back again to London, I found a card headed London, Theatres, and from the seven cards chose two as possible assistants:

Ordish, T. F. Early London theatres.

Williams, M. Some London theatres, past and present.

Of course this list is in no way complete, nor does it mean that in order to prepare the theme assigned a student would attempt to read from cover to cover all the books here mentioned. It is simply suggestive of the kind and amount of use to which the card catalogue may be put in an attempt to discover what the library makes available for the investigation of any subject.

Thus we find that the catalogue endeavors in a systematic, convenient manner to indicate what material is available in the library. It shows immediately not only whether a book is in the library but also where it is and something about its value, its date, size, etc., and indicates its location on the shelves. It tells not only what books by certain authors are in the library but also those which may be called for by their editors, translators or compilers. It brings together in one place an indication of what the library possesses on a given subject not only in entire volumes but in parts of volumes, or in some cases chapters of books. Moreover, by the use of reference cards, it directs the reader to other parts of the catalogue than that

which he is consulting where he should find other material which may be of assistance to him.

The arrangement of the cards in the catalogue determine its form. This has been made as compact and as simple to follow as possible. An arrangement bringing all of the different kinds of information presented into one alphabet, as in the dictionary catalogue, seems to be the most serviceable for general purposes, although other forms are made to suit other needs.

The use of the card catalogue is varied and far reaching.

EXERCISE ON THE CATALOGUE

1. Who wrote "Ethan Brand"?
2. Write the titles of five other books written by the same author which are in the library. Does the library possess a first edition of any of these?
3. Copy the author, title and call number of the accounts of the life of the author which are in the library.
4. Give the author, brief title and call number of three books on the following subjects, as listed in the catalogue: Social life in Rome; United States Navy; Athletics; Stage in America; United States, War of 1812; American poetry.
5. Give the author, title and date of the most recent book in the library on Electrolysis of water; Aeroplanes; Baseball.
6. Name a book written by each of the following: Mark Twain; Miss Mulock; George Sand; Pierre Loti.
7. Does the library possess the Riverside edition of Keats' poems?
8. In what book can you find one of the following: "The Madonna of the Peach Tree," by Maurice Hewlett; "The Luck of Roaring Camp," by Bret Harte; "Mother o' Mine," by Rudyard Kipling.

Chapter II

CLASSIFICATION AND SHELF ARRANGEMENT OF BOOKS

Bewilderment in a second hand book shop is due to the lack of arrangement of the books on the shelves. A library collection similarly arranged would bewilder its librarian as well as its users. If you were to become a clerk in a second hand book shop and were expected to find any particular book quickly you would naturally devise some sort of an arrangement by which you could locate it promptly.

In a college library it not infrequently happens that a large number of books are grouped together for the purpose of reference or for seminar or class work. The arrangement in this particular circumstance is governed by the specific use at the time. The instructor gives his direction as to the manner in which the particular books are to be used and the student is asked little more than to follow instructions. However, it is essential that each student should know the classification and shelf arrangement of the entire collection for his own specific uses.

The purpose of classification of books is to bring together in one place according to a convenient, systematic arrangement all the books of a similar nature. When everything is considered experience shows that the subject matter of a book is the safest basis for classification. Thus books dealing on the same subject are to be found together on the shelves, and as near them as convenience will allow allied subjects.

Every library may have its own individual scheme for arranging its books, but there are a few fundamentals which are essential to every scheme that is to be entirely satisfactory. It should be (1) natural, (2) minutely detailed, (3) with a notation providing for infinite subdivision, (4) provided with an adequate index, and (5) in general use. If it is to be natural it must be based upon division which shall be at once useful to the reader as well as logical and systematic in its application. The subject material of the book is the most natural division; and therefore, librarians have in general taken this as a basis for their classification. You wish to find Captain Scott's Journal of his discoveries of the South Pole. Instantly your mind directs you to travel and description in general and to the Antarctic region in particular. You do not necessarily think of the size, although some classifications have been worked out on this basis; nor do you think of the date of the publication, a scheme advocated for the classification of incunabula.

And in the second place a classification should be minutely detailed. This is necessary especially in a collection of a college library because books dealing with a somewhat limited phase of a subject must be used together, and found quickly. You are to write a report on the events in Boston immediately following the Massacre there March 5, 1770. A hunt through the possible four thousand volumes in the library dealing with United States history would consume much time. You will probably find the books divided chronologically: histories dealing with (1) Indians, (2) Colonies, (3) Revolution, (4) period of 1812, (5) Civil War, (6) the last fifty years, (7) histories of the different states. Turning to those of Massachusetts, you will probably find beyond them those dealing with the history of Boston. This is minutely detailed classification.

Again a good book classification should have a nota-

tion providing for indefinite subdivision. By a notation we mean a symbol which may be used to indicate the location on the shelf of a particular book; just as "7 Beacon Street" indicates in the city an individual house. This book notation should be capable of distinguishing one book from every other book in the library; it must provide for the addition of books before it on the shelf as well as after it without upsetting the shelf arrangement; it must be capable of indicating divisions of the subject not previously provided for; and it must be of such a character that it will be convenient to use in all the mechanism of the library. This will become apparent when we give as an example the Dewey Decimal Classification later in this chapter.

Furthermore an adequate index is necessary for a book classification. You wish to find a book on lepidoptera but you do not know in what section of the classification the librarian may have put such a book. The index reveals the place under Insects and gives you the notation. You are interested in the effect of the mind in cases of disease. The index will point out at once the fact that these books have been put into a particular class, and also that you will find other similar and perhaps helpful books in the section of psychology, and also that of healing, as well as of physiology.

The general use of a classification is an advantage for a library and for its readers. Familiarity with the books is the first step to sympathetic use. If you have been in the habit of going to certain shelves in your library at home where you found all the books on outdoor life or sports together, and when you go into your college library you find the same books together with very similar numbers, you feel more acquainted at once even in a strange place, and your use of the library becomes at once more enthusiastic and intelligent. For example, recently I visited a

library in which I had never been before. I noticed from book numbers in the card catalogue that the classification scheme used there was the one with which I am familiar, and without assistance from the library staff I went to the shelves and immediately found the three books for which I had come to the building; not an unusual circumstance in a well organized library. The library contains over two hundred thousand volumes.

The two systems of classification most in use in American libraries, especially those of medium size and those in which collections have been recently formed, are the Decimal of Mr. Melvil Dewey, and the Expansive of the late Mr. Charles A. Cutter.

The Decimal system is still more complete than the Expansive, is more fully indexed, and is in wider use. The Expansive is perhaps more logical at certain points and, as it uses a predominant alphabetic notation, admits of a much larger number of coordinate classes or subclasses. The main divisions of Mr. Cutter's classification are indicated as follows:

- | | |
|----------------------------|-----------------------|
| A. General works. | G. Geography. |
| B. Philosophy. | H. Political science. |
| C. Christianity. | I. Sociology. |
| D. Ecclesiastical history. | J. Government. |
| E. Biography. | K. Woman. |
| F. History. | L. General science. |
| F02 Ancient history. | M. Natural science. |
| F30 Europe. | N. Botany. |
| F83 United States. | O. Zoology. |
| F831 Colonial Period. | P. Vertebrates. |
| F832 Revolution. | Q. Medicine. |
| F833 Period 1783-1860. | R. Useful arts. |
| F834 Civil War. | S. Constructive arts. |
| | T. Fabricative arts. |

U. Art of war.	X. English literature.
V. Athletic and recreative arts.	Y. Literature.
W. Fine arts.	Z. Book arts.

The Decimal Classification, as its name implies, divides the whole field of literature into ten classes, each of these into ten subclasses, and so on. Its notation, therefore, is simply the ordinary notation of arithmetic, consisting of whole numbers and decimal fractions. Dewey uses the hundreds place for his primary classification. Thus:

000-099 General Works, i.e. encyclopedias, bibliographies, magazines.

100-199 Philosophy, i.e. Bergson, Mind and Matter.

200-299 Religion, i.e. Raymond, Suggestions for the spiritual life.

300-399 Sociology, i.e. Munro, Government of American cities.

400-499 Philology, i.e. Skeat, Etymological dictionary.

500-599 Natural science, i.e. Ganog, The living plant.

600-699 Useful arts, i.e. Ross, Reduction of domestic flies.

700-799 Fine arts, i.e. Van Dyke, Art for art's sake.

800-899 Literature, i.e. Lamb, Essays of Elia.

900-999 History, i.e. Ferrero, Greatness and decline of Rome.

Each of these classes is again divided into ten divisions, of which the first is general.

700 Fine arts.	750 Painting.
710 Landscape gardening.	760 Engraving.
720 Architecture.	770 Photography.
730 Sculpture.	780 Music.
740 Drawing.	790 Amusement.

Each of these subdivisions is divided into ten divisions.

780 Music.	785 Orchestral music.
781 Theory of music.	786 Piano or organ.
782 Dramatic music.	787 Stringed instruments.
783 Sacred music.	788 Wind instruments.
784 Vocal music.	789 Mechanical instruments

Infinite subdivision is provided for, by the addition of subsection numbers, separated from the section numbers by a decimal point. Thus 654 is the section on telegraph, cables and signals, and 654.27 (read 654 point 27) is wireless telegraphy and 654.7 is burglar alarms.

When the books are put on the shelves a mark on the back indicates the class to which it belongs. A book treating of music receives the number 780 or whatever division number will best meet its subject classification; other books having 780 on them are naturally placed beside it on the shelf, and the result is that we find all the books in the library about music grouped together. All scores of operas will receive the number 782, all collections of hymns 783; thus all the operas in the library will stand together on the shelves, immediately followed by all the collections of hymns.

In each division the order in which the books shall stand on the shelves is determined by the name of the author, and they are alphabetically arranged accordingly. Thus an opera written by Herbert would precede one written by Sullivan, while one by Wagner would follow them both.

In addition to these two systems, many libraries are found in which neither is in use but an individual scheme adapted to fit local conditions. This is due to the fact that when books in libraries were first arranged in classes no one scheme was in general use, and almost every librarian formulated his own. One or the other of these carefully prepared schemes is usually adopted in new libraries, and in

many cases some of the older and larger libraries are changing over to them.

Every classification, no matter in what way the above principles are applied, must have what is called a notation, a shorthand symbol for denoting the various classes and subclasses. This is used to mark a book and also its card in the catalogue, to charge it on the borrower's card, and to keep the book in its place on the shelves, distinguishing it from every other book in the library. It is usually a combination of figures and letters. The notation, or call number, consists of the class, author mark and book mark, i.e.,

520	=Subject class, astronomy.	Milham, How
M59	=Author mark.	to tell the
H	=Book mark.	stars.

The second line of the notation distinguishes different books in the same class or subject. Thus we might find 520 B21 as the notation of Ball's *Story of the heavens*.

Some librarians consider that it is not essential to indicate the author in a notation, taking it for granted that the user of the library understands that all books in one subject are arranged according to the author and therefore only a knowledge of the class is necessary to find the book. In the case of fiction, some librarians are not indicating any notation on the books. In such cases the books are arranged on the shelves alphabetically according to their author and the charging system consists of an individual card for each book, so that no notation is necessary.

So we see that books are arranged numerically on the shelves by the number on the top line of the notation, then alphabetically by the letter on the lower line and numerically again by the figures following the letter.

Books stand on each shelf arranged from left to right

and the shelves are arranged from top to bottom like columns on the page of a newspaper.

History of Modern Architecture	House in Good Taste	Art for Art's Sake	World's Painters
—	—	—	—
Ferguson	DeWolfe	Van Dyke	Hoyt
—	—	—	—
720	747	750	759
F 35	D 52	V 24	H 86

(Books arranged by Class numbers)

Panama to Patagonia	The Other Americans	Colombia and Venezuela
—	—	—
Pepper	Ruhl	Scruggs
918	918	918
P 42	R 93	S 38

(Books of the same class number arranged alphabetically)

In a library, then, it is essential, in order to use the books, that they shall be classified. Whatever be the scheme, it must provide a natural arrangement by which books of a kind shall be brought together with a logical relation to allied kinds. Experience has taught that the subject matter of a book forms the most satisfactory basis for divisions. The classification must be minute enough to admit bringing together special books which treat of only a part of a large subject. And it must have a notation providing for all possible subdivision in the scheme and at the same time be convenient in use. These requirements are met in a large measure by the Dewey Decimal Classification, which divides all literature into ten classes, subdividing them as need demands.

EXERCISE

Find on the shelves the following books and indicate the book number of each:

Schouler, J., Americans of 1776.

Trine, In tune with the infinite.

Hyde, W. DeW., The college man and the college woman.

Shaler, N. G., Geology.

Brooks, Phillips, Sermons.

Small, A. W., General sociology.

Raymond, Handbook of anatomy.

Ruskin, J., Seven lamps of architecture.

Thackeray, W. M., Henry Esmond.

James, William, Psychology.

Pennell, Joseph, Life of James McNeill Whistler.

Chapter III

MAGAZINE INDEXES

To the printed information published between the covers of magazines students turn for assistance in reference work. For a discussion of current topics, for a statement by an authority of some recent development in science, literature and art, for biographical estimates of leaders in the world of philosophy, politics and industrial arts, for the revelation of contemporaneous thought and local points of view of events happening some time ago, magazines furnish a wealth of information. A Freshman is assigned a theme in a course in Rhetoric on the question of allowing college men to receive pay for playing baseball during the summer and he finds discussions of the subject in this material. In the History course a Sophomore is to report on the purchase of the Canal Zone by the United States Government, and while he consults the official documents and correspondence as his authorities, he will be interested to supplement his research with the editorial comment made at the time of the purchase which appeared in magazines. A Junior investigating rural credits, turns to recently published articles. And so through all undergraduate days even to the Senior preparing a Commencement oration or thesis this valuable part of the library's resources is called constantly into use.

Publishers issue magazines in volume, usually six numbers of a monthly, for example, with consecutive paging. When the numbers are completed and the title page and index are ready, librarians bind the parts into a permanent

volume, and thus preserve the file. The endless number of articles appearing in weeklies, monthlies and quarterlies render it impossible to remember an article and the name of the magazine, volume and page where it appeared. On this account much of the material would be unavailable were it not for several general indexes which have been made for this specific purpose.

Poole's Index is the first and most important of the series of magazine indexes. Its origin may interest college undergraduates. While Mr. William F. Poole was a student at Yale College he was an assistant librarian of the college library, and the librarian of the college society called "Brothers in Unity." He noticed that the sets of standard periodicals were not used, although they were rich in treatment of subjects about which inquiries were made every day. He therefore made an index to the material, and his fellows soon flocked to him for help when the library catalogue and other assistants failed. In 1848 he printed a thin little volume of 154 pages called *An Index to Subjects Treated in Reviews and Other Periodicals*. Five years later a second edition appeared containing six times the amount of material, covering between three and four thousand volumes. In 1882, with the cooperation of many librarians all over the country, Mr. Poole brought out the first volume of *Index to Periodical Literature*, or *Poole's Index* as it is known today. In contrast to the initial volume of 154 pages this contained 1442 pages.

The Index to Periodical Literature, published by Mr. Poole in 1882, is an index of two hundred and thirty-two magazines in the English language apt to be found in public libraries, covering the years 1802-1881. Five supplements have appeared, at five-year intervals, covering the years from 1882 to 1906. An abridged edition was published in 1900 in one volume, indexing thirty-seven of the most

used periodicals from their beginning through 1899. This was followed by a supplement for the years 1900-1904.

Poole's Index is the most comprehensive of any periodical index. It included many magazines now discontinued and many that are only useful in a large or special library. The work is an index to subjects and not to authors, except cases of authors treated as subjects. For example, Macaulay's contributions to the *Edinburgh Review* appear not under his name, but under the subjects upon which he wrote, as Bacon; Church and State; Clive; etc. His name, however, appears in many references, but they are all subject references, which treat of him as a man, a writer, and a historian. Critical articles on poetry, drama, and prose fiction appear under the name of the writer whose work is criticised, thus a review of "Enoch Arden" will be found under Tennyson, but a review of Froude's *History of England* will appear only under England, as England is the subject. A poem, play or story which can be said to have no subject appears under its own title. The arrangement is alphabetical, in dictionary form. There are a few cross-references. At the beginning of each volume there is a list of periodicals indexed which is useful as it gives also the abbreviations of the magazines used in the text, and their full names. The author of the article is given in parentheses after the subject or title entry, followed by the name of the magazine, in abbreviated form, volume, and page. The title is inverted if necessary so as to bring the name of the subject first. The form of entry is:

Hawthorne, Nathaniel, Secret of. (M. D. Conway.) Nation, 78:509.

— Solitude of. (P. E. More.) Atlan. 88:588.

Hay, John. (B. Adams.) McClure, 19:173.

— Portrait. (H. Macfarland.) R. of Rs. 21:33.

Hay-Pauncefote treaty. (B. Taylor.) Fortn. 77:297.

Hazy Night, A. (T. A. Tauvier.) Cosmopol. 33:313.

He died trying. Chaut. 37:301.

This index stopped with the 1904 volume, but the work was continued by another publication which had been known by the name of *The Annual Literary Index* from 1892 to 1904. The name was changed to *Annual Library Index*, by which it went under the editorship of Librarian W. I. Fletcher of Amherst College, until 1910, when it was discontinued. This may have been due to the fact that its annual appearance made it less popular than the *Readers' Guide to Periodical Literature*, which had been in existence since 1900.

The fact that the titles of the indexes are not uniform, and that for the years 1900 to 1910 there was more than one general index covering the magazine material for those years, has sometimes caused students considerable confusion. With the passing of the *American Library Index* in 1910 the indexing of the magazines was redistributed. Of the 116 periodicals indexed in that publication, 52 are now indexed in the *Readers' Guide*, 23 in the *Readers' Guide Supplement*, 15 in the *Magazine Subject-Index*, 2 in the *Industrial Arts Index*, while 24 have been dropped and their places filled with others giving promise of more usefulness. The *Readers' Guide* publication differs radically from *Poole's Index* in that it appears monthly, with accumulated number every quarter. That is, the *Index* appearing in January, April, July and October covers the magazines for that one month; the February, May, August and November numbers contain two months and the March, June, September and December numbers are cumulated for three, six, nine, and twelve months, respectively. The December number serves as an annual *Index* for the year. The great advantage in this arrange-

ment is the fact that the reader can find material in its most recent form, monthly, and he does not have to wait until the end of the year for the *Index*. There are at present three five-year volumes, 1900-1904, 1905-1909, and 1910-1914. The first volume indexes sixty-seven English and American periodicals, and the second ninety-nine periodicals, and also "in the same alphabet several hundred composite books, reports of learned societies, etc., published since 1900." The articles are more fully indexed in the *Readers' Guide* than they are in *Poole's Index*, for they appear by author, subject and title entries. Portraits and maps are indicated and important book reviews are included. It does not index as many magazines as Poole.

The form of entry of the *Readers' Guide to Periodical Literature*:

Lanterns.

Colonial lanterns for hall and porch. H. Adams. Il. Woman's H. C. 40:45. O., '13.

Old lanterns. E. H. Watts. Il. Am. Homes. 10: 255-7. Jl., '13.

Lantz, David Ernest, 1855.

Biological Society of Washington, 1912. Science, U. S. 37:425-6. Ma. 14, '13.

La Paz, Bolivia.

Across Titicaca, with a glimpse of Bolivia. E. Peixoto. Il. Scrib. M. 54:80-7. Jl., '13.

La Paz, The de facto capital of Bolivia. Il. H. Brigham.

Across South America. 224-40.

Lapidary work, see Gems.

The bibliographic formula shows the title of the article followed by the author, the name of the magazine, the volume and page, similar to that in *Poole's Index*, but in each case it shows in addition the date of the publication. This is of considerable importance in indicating the value of the article from the standpoint of time. This form is

in general use among bibliographers. Do not write "volume" and "page" in making notes from the indexes, but place a colon between the two sets of figures to indicate these words. Uniformity and conciseness are gained by this method.

There is another general index, the *Magazine Subject-Index*, published by the Boston Book Company. This now covers one hundred and fifty-six American and English periodicals, not already indexed in the *Readers' Guide*. It indexes the publications of the state historical societies. Short, unimportant articles are, as a rule, omitted. Fiction and poetry are not included, except that continued novels and stories by well-known authors are admitted under the authors' names. The author, title, magazine, volume, inclusive pages, month and year of each article are given, and illustrations, portraits, maps, and plans are specifically indicated.

This index is of considerable assistance in tracing material of a scholarly nature, and is a valuable asset in the college library especially.

In addition to these general indexes others, similar and using much the same form of bibliographic formula, have been prepared on special or specific subjects. Among others usually at hand in a college library we have for book reviews *The Book Review Digest*; for the drama, *The Dramatic Index*; for the law, *Index to Legal Periodicals*; for medicine, *Catalogue of the United States Surgeon-general's office*, supplemented by the *Index Medicus*; for portraits, *The A. L. A. Portrait Index*; for religion, Richardson's *Alphabetic Subject and Author Index and Index Encyclopedia of Periodical Articles on Religion*; for science, *Engineering Index*, and *Industrial Arts Index*.

Compilers have prepared a large number of indexes to separate periodicals. For example, we have indexes cover-

ing a series of years of the volumes of the *Forum*, *Harper's Weekly*, *North American Review*, *Revue des Deux Mondes*, etc. A list of such indexes is to be found in Stein's *Manuel de Bibliographie Generale*, 1897, pp. 637-710, "Tables Generales de Periodiques de Toutes Langues."

A helpful general index for foreign periodicals is *Internationale Biographie der Zeitschriftenliteratur*. This is published in two parts, the first being devoted to German periodicals, and the second to other European countries. The second part is chiefly useful to students for the abundance of French material which it contains. In Europe the same attention is not paid in libraries to periodical sets as in America, so that this phase of the bibliographic art on the Continent is weak.

In searching for material in the magazines you will be directed by your particular problems to pursue one of two methods. You will wish to look up material which by its nature is limited to a definite time, such as President Cleveland's policy in the Venezuelan Boundary Question. In that case you will consult the volume of an index covering the year 1897. Or you may wish to find material on a subject concerned with a succession of years; for example, the growth and development of the American navy. In that case you will wish to discover what appeared each year from the beginning to the present day. In both cases care should be exercised not to duplicate work by looking in indexes for material which has already been located in others.

You have been assigned a theme to be written on "Animals in Moving Pictures," with special reference as to how the pictures are made. When you look at one of the recent indexes and turn to the subject heading, "Moving Pictures," you will find over a column of references to

articles. Many of them do not in any way meet your present need, but you will find these:

Stalking game with the kinematograph. *Sci. Am.* 110:342. Ap. 25, '14.

Training wild animals for moving pictures. *Sci. Am.* 110:443. May 30, '14.

Turning to another volume of the index covering different years you will find many other references, and among them:

Moving pictures in the Jungle. Steele, W. D. *McClure*, 40:329-37. Ja., '13.

Wild animals for moving pictures. R. H. Moulton. *Tech. World*, 20:132-7. S., '13.

In consulting magazine material it is well to make notes of references found in the indexes before turning at all to the magazines. In this way a clearer survey of available material is gained, than if a reference is noted in an index and the article is then looked up in the magazine. Whether you are to submit a list of references or not, it is advisable in a short piece of work, and always necessary in a longer one, to make a copy of each reference you think will help you on a slip of paper, including the title of the article, name of the magazine, volume, page and date. Use the same form used in the index, or in other words copy the bibliographic formula, thus:

Steele, W. D. Moving pictures in the jungle. McClure. 40:329-37. Ja. '13.

This means that an article written by W. D. Steele, called "Moving pictures in the jungle," will be found in *McClure's Magazine*, volume 40, pages 329-337, and that the issue is that of January, 1913.

When all the indexes have been consulted and slips are made for those seeming to have a bearing on the subject, you are ready to consult the articles themselves. As you look over the article it may be helpful to note on its respective slip the scope of the article or some other comment which will recall its scope when you come to construct your own article. In the making of bibliographies, which we shall discuss later, the annotated slips become especially valuable.

It is always to be borne in mind that for the preparation of any work several magazine articles should be consulted and they should be judged according to the reputation of their authors. Magazine material will be helpful for all manner of themes and reports. In debating it is indispensable. It will oftentimes be helpful in studying the work of an author whose work in verse or prose may not yet be available in book form.

A methodical process in the use of the indexes saves much time and produces more satisfactory results than an unsystematic procedure. The fact that there exist several indexes covering almost identical ground for certain years frequently confuses the reader. For general work, therefore, you will in most cases cover the ground satisfactorily if you use *Poole's Index*, 1802-1881, 2 vols., and the four supplementary volumes ending with 1900, and the three volumes of *Readers' Guide*, which cover 1900 to 1914, supplemented with the annual bound volumes of the latter, and the quarterly and monthly issues of the current year. If the desired material is not found, search through the files of the other general indexes and those in special fields. Work systematically forward or backward, as the case may require, until sufficient or exact material comes to light. One must constantly consider whether the subject under consideration is of such a nature that it has already ap-

peared in compact book form. In that case the book will probably be a more satisfactory source of information. For example, in a study of social science many of Miss Jane Addams' magazine articles on her work in Chicago might be helpful. They are varied and scattered. Her book *Twenty Years at Hull House* will in all probability give in more compact form the results of her experience sufficiently to give the student a better idea of the work than if he read through the unrelated magazine articles.

EXERCISE ON MAGAZINE INDEXES

1. Consult the magazine indexes discussed and find a reference to an article on one of the following subjects: Learning to swim; Oxford scholarship; President Wilson's views on the tariff; Industrial arbitration; Tolstoi's dramas; Yates; Charles Eliot Norton.

Write down the author and title of the article chosen; give name of the magazine in which the article appears, and the full bibliographic formula as given.

2. Interpret the formula. What is the title of the index you used? What year or years does it index? Go to the shelves and find the magazine article referred to.

3. Look up, as for debating material, two articles, one on the affirmative and one on the negative side of the question: Resolved: "That a graduated tax should be imposed upon all citizens receiving over three thousand dollars per annum income." Give the authors and titles of articles, names of magazines, and the volumes and pages on which each is to be found. Give the title and volume of indexes consulted.

4. What magazine first published "The New England Nun," by Thomas Bailey Aldrich? Give the volume and page on which it occurred, together with the date.

5. Find a criticism of Browning's "Ring and the Book" or Tennyson's "In Memoriam," published contemporaneously with the first appearance of the poem. Give the exact reference.

6. Has an article appeared during the last six months on the United States Navy? Give the title and bibliographic formula. Give name and date of the index which you used to find it.

Chapter IV

GENERAL REFERENCE BOOKS

The scientific use of reference books is a mark of efficiency. To know where to look for information without wasting time distinguishes the scholar from the stranger among books. If a student makes the most of his opportunities in becoming familiar with the general books of reference, and the special ones of his own subject, during his undergraduate years, he will find that he has acquired more from his training than he would otherwise have done, and in after years he should be able to use all books intelligently.

A knowledge of reference books implies something more than the repetition of their titles. Fix titles and distinctive values of each book in your mind as you consult the book. A Senior once asked me for a "green book" he had "used Freshman year for finding material on certain subjects appearing as chapters or parts of books."

College librarians bring together in a convenient place certain books which are retained where they may be available at all times by any one seeking information. From this fact, and also from the fact that they are not written for a thorough reading from cover to cover, but for consultation, they are called "reference books." They are frequently large, expensive volumes with material arranged so that it may be readily and quickly available. In most cases in such books the information is arranged alphabetically so that one may turn to the desired subject directly. Examples are dictionaries, encyclopedias, both

general and those of special subjects, atlases with full indexes, and handbooks on all subjects. Many reference collections are made up so as to cover the usual classes treated in the book collection.

To become familiar with the reference books study of their contents is essential. Expertness can come only through habitual use of the books themselves. The purpose of each book or set of volumes is usually stated in the preface or introduction, and after reading these carefully, the student should examine the book for whatever special features it may possess, including indexes, cross-references, and bibliographies. Learn to distinguish which treats most satisfactorily your specific need. Examine several articles and compare with those on the same subject in other reference books. For example, if you wish a statement of Richard Bentley, the scholar and critic of the late seventeenth century, among many other reference books you may consult the *Encyclopedia Britannica*, which presents a concise statement of life and works and a brief bibliography, or the *National Dictionary of Biography*, which emphasizes the events of his life and of his publications, or the *Cambridge History of English Literature*, which offers most prominently his literary work in connection with the movement for classical scholarship activity in his day. This also presents a full bibliography of Bentley's writings, and a brief list of criticisms and biographies.

In this study it is well to note the authority for the article, its arrangement, the date, the treatment of the subject, whether technical or popular, concise or extended. For a great deal of undergraduate work the material contained in reference books is not sufficient. Authorities stated in the articles should be consulted for source material, contemporary evidence or criticism.

While it is impossible in the limits of this manual to indi-

cate a complete list of reference books, general and special, which a student will require in his college course, it may be helpful to point out some of the most important.

DICTIONARIES

Webster's New International Dictionary of the English language. Springfield, Mass. Merriam. 1911.

This is a complete revision of the 1890 and 1900 editions, adding many new words and incorporating in the main vocabulary all the supplementary lists included in the back of the earlier editions, except the Geographical Gazetteer and the Biographical Dictionary.

Century dictionary and cyclopedia, with a new atlas of the world. Rev. ed. 12 vols. N. Y. Century Co. 1911. Vols. 1-10. Dictionary proper. Vol. 11. Cyclopedia of names, including geography, biography, mythology, history, ethnology, art and fiction. Vol. 12. Atlas.

This is the most comprehensive American dictionary, encyclopedic in character, and gives fuller definitions than is usual in dictionaries. The preface states that that plan of construction has included three things: the construction of a general dictionary of the English language which shall be available for every literary and practical use; a more complete collection of the technical terms of various sciences, arts, trades, and professions than has yet been attempted; and the additions to the definitions proper of such related encyclopedic matter with pictorial illustrations, as shall constitute a convenient book of general reference.

Murray, J. A. H. New English dictionary on historical principles. Oxford. Clarendon Press. 1888 to date.

This scholarly dictionary is known as the **Oxford Dictionary**. It is very full on the philological side, and includes English words now in general use, or those in use at any time during the past 700 years, giving their meaning, origin, and history, with a large number of quotations from English writers to illustrate the history and the use of words.

March, F. A., and March, F. A., Jr. A **thesaurus dictionary** of the English language, designed to suggest immediately any desired word needed to express exactly a given idea; a dictionary of synonyms, antonyms, idioms, foreign phrases, pronunciations, a copious correlation of words. Phila. Historical pub. co. 1902.

Smith, C. J. **Synonyms discriminated:** a dictionary of synonymous words in the English language. 5th Enl. ed. N. Y. Holt. 1896.

The derivation of words is given, and a closer discrimination as to the use of words is made than usual. Quotations are from standard authors.

An excellent small dictionary that can be recommended for a student's private book shelf is:

Fowler, H. W. **Concise Oxford dictionary** of current English. Oxford. Clarendon Press. 1911. \$1.00.

This includes words in current use or preserved in much used quotations or proverbs, scientific and technical terms that are current in general speech but are not purely learned terms, and many colloquial, facetious, slang and vulgar expressions. It is based upon the work done for the new English dictionary.

ENCYCLOPEDIAS

Encyclopedia Britannica. 11th ed. 29 vols. Cambridge, Eng. Cambridge Univ. Press. 1910.

While this is the most scholarly encyclopedia, it is too complete and scholarly for popular use. Articles are arranged under a general subject rather than specific subject, and although the latest edition arranges material under smaller subjects than the earlier editions, it is necessary to refer constantly to the index volume in order to be sure of finding all material on a subject and in order to use the encyclopedia intelligently. The signed articles are by well-known specialists and valuable bibliographies are appended. It is supplemented by the **Britannica Yearbook**.

New International Encyclopedia, ed. by D. C. Gilman,

and others. 24 vols. N. Y. Dodd, Mead & Co. 1914 to date.

One of the best encyclopedias for general reference. It furnishes reliable information without being too technical for popular use. The material is arranged under the specific subject of which the article treats. Additional references are given at the end of each important article. This is supplemented by the **New International Yearbook**.

Myers grosses konversations-lexikon; ein nachschlagewerk des allgemeinen wissens. 6th ed. enl. 20 vols. Lpz. Bibliographisches institut. 1904-08.

The articles are unsigned, but this is an excellent encyclopedia. Compare it with **Brockhaus' Konversations-lexikon**, of which it is said, "No encyclopedia has been more useful and successful, or more frequently copied, imitated and translated." It is one of the most scholarly and serviceable encyclopedias in any language.

Everyman encyclopedia, ed. by Andrew Boyle. (Everyman Library.) 12 vols. N. Y. Dutton.

This is a small encyclopedia handy for a student's book shelf. The articles are concise, accurate and well up to date, and although written from the English standpoint, the work is general in scope, and a fair amount of space is given to American subjects.

GENERAL STATISTICS

ANNUALS AND YEARBOOKS

Annual register: a review of public events at home and abroad. Lond. Longmans, Green. Annual.

Published annually since 1748, it contains English history, foreign and colonial history, chronicle of events, retrospect of literature, science, art and obituary. This is the most famous, and one of the most useful, of the annual publications of current history.

World Almanac. N. Y. The World. Annual.

Especially useful for material about the United States, but it also includes foreign and miscellaneous statistics.

It contains a vast amount of information on all sorts of subjects: recent statistics, political, educational, agricultural; astronomical information; weights and measures; collegiate statistics; athletics; election returns and foreign governments.

American Yearbook; a record of events and progress. N. Y. Appleton. Annual.

An excellent yearbook made up of signed articles by specialists, giving narrative accounts, including bibliographies and statistics, of the events of the year grouped by large subjects under the general heads of Comparative statistics, History and politics, Government, Economic and social questions, Public works and national defence, Industries and occupations, Science and engineering, Humanities, Current record, Chronology and necrology. Each article covers its subject in all countries, but aims especially to record progress in the United States.

Statesman's Year-Book. Lond. Macmillan. Annual.

The statistical and descriptive information regarding all the countries of the world, is revised every year. It has a high reputation for accuracy, and is the most important of yearbooks. Arrangement: British Empire; Foreign countries; Alphabetically. Refers at the end of each country to statistical and other books of reference concerning it.

U. S. Bureau of Statistics. **Statistical abstract of the United States.** Wash. Govt. printing office. Annual.

Annual statistics of population, finance, commerce, industries, agricultural and other products, immigration, education, etc., for the current year, and in many cases for a number of years past.

Hazell's Annual. Lond. Hazell. Annual.

A brief record of men and topics of the day alphabetically arranged like an encyclopedia. Chiefly concerned with English, colonial and foreign affairs, but including also many general topics.

Harper's Book of Facts. A classified history of the

world, embracing science, literature and art. New ed. N. Y. Harper. 1906.

A useful reference book when brief, concise accounts of events, persons and places are desired. Chronological outline of the history of cities and countries is given under the name of each.

Haydn, Joseph. **Dictionary of Dates** and universal information relating to all ages and nations. 24th ed. N. Y. Putnam. 1906.

An alphabetic arrangement under the name of event, place, etc., giving a brief account down to the summer of 1906. Especial attention is given to the British Empire. An alphabetic index gives simply dates of persons and events.

There are certain points to be considered in judging general reference books. First, consider whether the editor or editors are authorities or not. Second, observe whether the date is recent, and determine whether it must be supplemented by other material in order to bring it up to date. If you are considering an encyclopedia it is well to note whether the articles are signed or not, also the presence or absence of bibliographies, and the completeness of the references to additional material at the end of the articles. Take notice also of the use of cross-references to see if they are satisfactory; whether or not you are referred from one part of the work to others which contain related material, or if you turn to one heading or spelling not used are you referred to one which is?

It is essential, if reference books are to be used intelligently, that time be taken to study each one carefully, not only separately but also comparatively. A student should read the title page carefully, glancing over the preface and introduction, and looking for special features, such as indexes, cross-references, bibliographies, etc. Much time and labor will be saved in this way.

EXERCISE ON GENERAL REFERENCE BOOKS

Look over the books mentioned in this chapter, comparing the annotations of each with the volumes to discover each feature of the work. With this information in mind look up the answers to the following questions. The best results will be obtained if a careful comparison is made of the information given in the different books as to amount, form, and place found, whether in main text or in an appendix. While some of the answers to the questions are to be found by using two or three of the books cited, this exercise will be of particular value if the student seeks to choose first the best place to look for the special kind of information for which each question calls. For example, a word of slang in the time of Queen Elizabeth naturally suggests the *Oxford dictionary*, and in many cases this may be the only authoritative source of information.

1. What reference book would you use to find the motto of the Commonwealth of Massachusetts, as indicated on the seal? What is the meaning of the motto?

2. Give the etymology of the word *stand*. What can you find about the word *premortem*? Where can you find an explanation of the origin of the phrase, "Set the world on fire"? How many meanings has the word *clever* had in the English language?

3. Where did you find the meaning of each of the following abbreviations: *ibid.*; *f. o. b.*; *viz.*; *dwt.* Give the word or words from which each was taken.

4. What is Temple Bar? What is the Mahabharata? Who was Fiona McLeod? Who was called The Iron Duke? What reference book did you use to find out?

5. How could the author of "Aurora Leigh" be found in the Encyclopedia Britannica? How could it be found in the New International Encyclopedia? In what dictionary can it be found?

6. What was the total export of machinery from the United States in 1915? What was the total amount of internal revenue collected in the United States in 1915? In what book did you find this date?

7. Where can you find: Board of Estimate of New York City, 1915; Panama Canal Act of 1912; Court findings in The Titanic Disaster; Text of the Declaration of Independence and its Signers?

Chapter V

SPECIAL REFERENCE BOOKS

When a student has mastered the reference books which deal with general subjects, there remains for him several special reference books, that is, books written to give fuller information along a certain line than is furnished by the general reference books. We will here discuss a selection which should furnish practice in the use of such volumes among the multitude that every college library possesses.

For convenience the books are here grouped in the following way: Biography; History, with its coordinate subjects of Classical antiquities, Geography and Atlases; Literature, with its divisions of Poetry, Quotations, Literary handbooks, and Fiction; Art, together with Painting, Architecture, Music, and Industrial arts; Sociology, including Economics and government, Education, and Customs; and Religion and Philosophy.

BIOGRAPHY

Lippincott's universal pronouncing dictionary of biography and mythology, ed. by Joseph Thomas. 3rd ed. rev. and enlarged, brought up to 1901. 2 vols. Phila. Lippincott. 1905. \$15.00.

Known as Lippincott's biographical dictionary. Best general biographical reference book, giving pronunciation of names, statements of lives of persons, and bibliographic references.

Century cyclopedia of names. Published as vol. 11 of

the **Century dictionary**. New ed. N. Y. Century Co. 1911.

This includes names in geography, biography, mythology, history, ethnology, art, fiction. It is fullest in geography and biography. Information is presented in concise form, and includes pronunciation and derivation of names given.

Dictionary of national biography, ed. by Sir Leslie Stephen; with an **Index and epitome** by Sir Sidney Lee. 67 vols. N. Y. Macmillan. 1885-1904. New edition in 22 vols. N. Y. Macmillan. 1908.

This is the most authoritative work on British biography. It is confined to Great Britain and no living persons are included. Bibliographies at the end of each article are valuable.

National encyclopedia of American biography. 13 vols. N. Y. White. 1892-1906.

Contains biographic sketches of prominent Americans, particularly those of the present time. Names are grouped with reference to their work, but they do not necessarily follow in any special order. Articles should be traced in the analytical summary volume called "A conspectus of American biography." In addition to an index to persons it contains lists of men in public or private office grouped under such heads as: Presidents of the United States, Cabinet officers, governors of States, presidents of learned societies, editors of magazines; also lists of pseudonyms of famous Americans.

Who's who in America: a biographical dictionary of notable living men and women of the United States, ed. by A. N. Marquis. Revised and reissued biennially. Chic. Marquis. 1899 to date. \$5.00.

Condensed sketches of the lives of prominent men now living.

Who's who: an annual biographical dictionary. London. Macmillan. 1848 to date. \$2.50.

This includes brief biographies of the most prominent persons of England, together with some famous persons of the Continent. Not so inclusive as the American annual, especially is this noticeable in the case of writers.

Similar to the above mentioned annuals are **Wer ist's?** and **Qui êtes vous?** for the German and French notables respectively. They are not annuals.

Minerva; jahrbuch der gelehrten welt, 1891 to date. Strassburg. Trubner, 1891 to date.

A valuable yearly publication giving brief history, list of publications, faculty, etc., of the universities, colleges, technical schools, libraries, museums, learned societies and institutes, arranged alphabetically under the name of the city in which each is located. There is an index of places.

U. S. Congress. Congressional directory. Wash. Govt. printing office. 1809 to date.

Contains biographical sketches of all Congressmen, Cabinet officers and Supreme Court Justices: personnel of committees; a directory of the various government offices, with a brief statement of their duties and a list of the diplomatic and consular service. A new issue is published for each session of Congress.

HISTORY

Haydn, J. T., comp. Dictionary of dates and universal information relating to all ages and nations, ed. by Benjamin Vinsant. 25th ed. N. Y. Putnam. 1911. \$6.50.

Standard and useful. Its arrangement is alphabetical under the name of the event and place. British history is especially well treated.

Harper's Encyclopedia of United States history, from 458 A. D. to 1912. Rev. ed. 10 vols. N. Y. Harper. 1912. \$24.00.

The most extensive cyclopedia of the subject, including many biographical articles and containing texts of the constitutions, famous speeches, essays, orations, resolutions, proclamations, facsimiles of important documents, etc.

The articles are written by well known historians and writers.

Larned, J. N., ed. History for ready reference from the best historians, biographers, and specialists. Rev. and enlarged ed. 7 vols. Springfield, Mass. Nichols. 1910. \$35.00.

Extracts from the writings of the best historians, biographers, and specialists to illustrate the history of all countries and all times. It is not a condensation, but gives the exact words of the writers quoted. The arrangement is alphabetical by country, event, etc., and under place is chronological. Numerous cross-references are helpful. Volume 6 covers the period 1894-1901, and volume 7 that of 1901-1910.

Low, S. J., and Pulling, F. S., eds. Dictionary of English history. New ed. rev. N. Y. Cassell. 1910. \$3.50.

An invaluable work presenting biographical, bibliographical, chronological, and constitutional information about English history.

Ploetz, Carl. Epitome of ancient, medieval and modern history; tr. and ed. by W. H. Tillinghast. New ed. Bost. Houghton. 1905. \$3.00.

Events are arranged each division by nationality.

CLASSICAL ANTIQUITIES

Harper's Dictionary of classical literature and antiquities. N. Y. American Book Co. 1897. \$6.00.

The best all-round classical reference book. It includes Greek and Roman antiquities, biography, geography, history, literature, mythology and contains bibliographical references, illustrations and maps.

Smith, Sir William, ed. Dictionary of Greek and Roman antiquities, including the laws, institutions, domestic usages, painting, sculpture, music and drama. 3rd ed. rev. and enlarged. 2 vols. Lond. Murray. 1890-91. 63 shillings.

Accepted by scholars as an authoritative work.

Blakeney, E. H., ed. Smaller classical dictionary. (Everyman library.) N. Y. Dutton. \$0.35.

This is a concise dictionary based on Smith's, and will be found to be helpful as a desk reference book.

GEOGRAPHY

Lippincott's new gazetteer of the world: a complete pronouncing gazetteer or geographical dictionary of the world, originally edited by Joseph Thomas. New ed., entirely rewritten. 2 vols. Phil. Lippincott. 1911. \$12.50.

The most comprehensive American work of its kind, alphabetically arranged, giving description and information of places, with pronunciation and various spellings of the names.

ATLASES

Stieler, Adolf. Hand-atlas uber alle theile der erde und uber das welt gebaude. Latest ed. Gotha. Perthes.

A German atlas and as such an excellent specimen of artistic and accurate map-making. It is probably the only atlas which continues from time to time to be constructed throughout on scientific principles. It has held the foremost place among all atlases.

Century Atlas of the World, revised and enlarged. N. Y. Century Co.

This forms volume 12 of the Century dictionary. Besides usual information, the maps indicate steamship routes and cable lines, battlefields are marked, and some historical maps shown. A full alphabetic index makes it easier to consult than the Rand, McNally Atlas.

Rand, McNally & Co., pub. Library Atlas of the world, containing over 200 maps and a complete index. 2 vols. Chic. Rand.

Vol. 1, United States; vol. 2, Foreign countries. In the volume covering the United States an index accompanies each map, giving population figures, and in volume for

foreign countries there is a general alphabetical index. It is useful because of the large scale of the maps.

Shepard, W. R. Historical Atlas. N. Y. Holt. 1911.

The best and most recent historical atlas, covering the period from 1450 B. C. to the present time. It has a full general index of names.

Everyman library atlases. N. Y. Dutton.

1. Literary and historical atlas of Europe. 2. Literary and historical atlas of America. 3. Atlas of ancient and classical geography.

Each of these 35c atlases outlines for its respective subjects, great historical movements, localities prominent in important literary works, growth of important cities, etc.

LITERATURE

Cambridge history of English literature; ed. by A. W. Ward and A. R. Waller. N. Y. Putnam. 1907—. 14 vols. \$31.50.

This valuable set comprises a thorough survey of the development of the English language and literature from the beginnings through the Victorian age. Each chapter is written by an authority, English, American or Continental, and has comprehensive bibliographies. The treatment is cyclopedic rather than continuous, and the general trend is linguistic rather than literary, but the work from its nature and scope is a most valuable reference work.

Chambers' Cyclopedia of English literature. New ed. by Daniel Patrick. 3 vols. Phil. Lippincott. 1902-04. \$12.00.

Critical and biographical account of English and American authors and characteristic selections from their works. Thoroughly revised by well known writers and brought up to date.

Fletcher, W. I. American library association index to general literature. N. Y. Anderson. 1911. \$6.00.

References under the subject to essays, papers, monographs, and other parts of books which are of sufficient

value, including some reports and publications of boards dealing with sociological affairs. Books indexed are listed at the end of the volume.

——— same. Supplement, 1900-1910. A. L. A. Publishing Board. 1914. \$4.00.

Moulton, C. W. Library of literary criticism of English and American authors. 8 vols. N. Y. Malkan. 1901-1909. \$40.00.

Arranged chronologically, a brief biographical sketch is followed by contemporary and later criticism.

Stedman, E. C., and Hutchinson, E. M., comps. Library of American Literature. 11 vols. N. Y. Webster. 1891. \$33.00.

Made for popular use and enjoyment, its design is to afford the reader a general view of the course of American literature. Select and characteristic examples from American literature are given without any critical notes, and the work is not confined to masterpieces. The arrangement is chronological with a general index in the last volume, which is useful in finding selections on special subjects. In the index, poems are indexed by title under Poetry. Short biographies of the authors are given in volume 11, which also contains a list of noted sayings of Americans.

Warner, C. D., ed. Library of the world's best literature, ancient and modern. 31 vols. N. Y. Warner Library Co. 1896-1899. \$77.50.

The biographical and critical sketches of authors of all ages and countries are written by eminent scholars and writers and are signed. The selections from their works have been well made. This is the best compilation of the kind.

Vol. 1-27. Biographical and critical sketches and selections.

Vol. 28. Songs, hymns and lyrics.

Vol. 29. Biographical dictionary of authors.

Vol. 30. Synopsis of noted books.

Vol. 31. Index guide, designed to give aid in pursuing courses of reading and study.

In addition to these books of general literature, the student should become familiar with concordances and dictionaries of particular authors. The following are suggestive of a great many others:

Bartlett, J. Concordance to Shakespeare.

Cooper, L. Concordance to the poems of Wordsworth.

Fyfe, T. A. Who's who in Dickens.

Mudge, I. G., and Sears. Thackeray dictionary.

Saxelby, F. O. Hardy dictionary.

Young, W. A. Kipling dictionary.

POETRY

Granger, Edith, ed. Index to poetry and recitations. Chic. McClure. 1904. \$5.00.

Very useful reference tool. Indexes 369 collections, including recitations, orations, and dialogues, with appended selections for holidays and special occasions.

Bryant, W. C., ed. New library of poetry and song, with his review of poets and poetry from the time of Chaucer. Rev. ed. N. Y. Baker & Taylor. 1903. \$5.00.

Popular poems and poetic extracts. Classified as poems of infancy and youth, friendship, love, home, religion, nature, peace and war, the sea, adventure, humor, etc. Indexes of titles, first lines and poetical quotations.

Stedman, E. C., ed. American anthology, 1787-1899, selections illustrating the author's critical review of American poetry in the 19th century. Bost. Houghton. 1900. \$2.00.

Grouped chronologically. Attempts to represent best work, not to select the imperishable. Followed by compact biographical notices, alphabetically arranged, of poets represented.

Ward, T. H., comp. English poets. (Student's edition.) 4 vols. N. Y. Macmillan. 1894-1903. \$1.00 each.

Covers English poetry from Chaucer to Tennyson; gives selections, critical prefaces to each poet by authorities on English literature and a general introduction by Matthew Arnold.

QUOTATIONS

Bartlett, John. Familiar quotations. 9th ed. Bost. Little. \$3.00.

A collection of passages, phrases and proverbs both poetical and prose, giving their sources in ancient and modern literature. Chronological arrangement with an index of authors and an index by most important words of the quotations. One of the most complete and accurate compilations.

Hoyt, J. K., and Ward, A. L. Cyclopedia of practical quotations. N. Y. Funk. \$6.00.

Arranged under subjects instead of chronologically. English quotations first, then Latin and foreign. Full indexes. The most useful work for quotations by subject.

LITERARY HANDBOOKS

Brewer, E. C. Reader's handbook of allusions, references, plots and stories. Rev. ed. Phil. Lippincott. 1898. \$2.00.

A concise account of such names as are used in allusions and references by writers.

ART

PAINTING

Champlin, J. D., and Perkins, C. G. Cyclopedia of painters and painting. 4 vols. N. Y. Scribner. 1892. \$20.00.

Names of painters and their works are given in one alphabet. A sketch of the artist and a list of his works and bibliographical notes is often accompanied by his portrait and an occasional reproduction in outline of important paintings. Under the name of a celebrated painting will be found a brief description of it.

ARCHITECTURE

Sturgis, Russell, and others. Dictionary of architecture and building, biographical, historical, and descriptive. 3 vols. N. Y. Macmillan. 1901. \$18.00.

This is eminently useful, and in the main a reliable work, contributing the features of a dictionary and an encyclopedia.

MUSIC

Grove, Sir George. **Dictionary of music and musicians.** Rev. ed. by J. Fuller Maitland. 5 vols. Macmillan. 1904-1910. \$25.00.

The best cyclopedia of music in English. It covers the whole field of music from before the middle of the 15th century to modern times. English music and musicians have been given special attention. Articles are by prominent writers and are signed.

INDUSTRIAL ARTS

Bailey, L. H., ed. **Cyclopedia of American agriculture.** 4 vols. N. Y. Macmillan. 1907-1909. \$20.00.

Grouped by subjects so as to form a comprehensive treatise, the composite work of several hundred specialists. Full index in each volume.

Hopkins, A. A., ed. **Scientific American cyclopedia of formulas.** N. Y. Munn. 1911. \$5.00.

This is a revision of the material contained in the 28th edition of the Scientific American cyclopedia of receipts, notes and queries, with much additional matter. The formulas are classified and grouped in chapters. An extensive section deals with chemical and technical processes.

SOCIOLOGY

LAW

Bouvier, John. **Bouvier's Law Dictionary.** New ed. rev. to date by Francis Rawle. 2 vols. Bost. Boston Book Co. 1897.

An encyclopedic dictionary, containing concise treatises on all the different phases of the law. Adapted to the laws of the United States, with reference to civil and other systems of foreign law. References are made to valuable articles in legal periodicals, and to reports of cases, abridgments, digests and other authorities. This is a standard

work because of the inherent excellence of its arrangement, system and execution.

ECONOMICS AND GOVERNMENT

Bliss, W. D. P., and Binder, R. M., eds. *New encyclopedia of social reform*. New ed. N. Y. Funk. 1908. \$7.60.

Comprehensive, accurate and impartial reference work, including beside social-reform movements and activities, economic, industrial and sociological facts and statistics of all countries and all social subjects. Brief bibliographies on important subjects.

Lalor, J. J. *Cyclopedia of political science, political economy, and of the political history of the United States*. 3 vols. N. Y. Merrill. 1888-1890.

In spite of the fact that it is not sufficiently up to date on many topics, it is an invaluable work of reference. The articles are written and signed by American and European specialists and contain bibliographic notes.

CUSTOMS

Chambers, Robert. *Book of days: a miscellany of popular antiquities in connection with the calendar*. 2 vols. Phil. Lippincott. 1911. \$5.00.

Originally published in 1862-1864, including under each day of the year anecdote, biography, curiosities of literature and miscellaneous information. A general index in volume 2 must be used. Useful for looking up information about the customs of holidays, etc.

RELIGION AND PHILOSOPHY

Baldwin, J. M. *Dictionary of philosophy and psychology*. New ed. 3 vols. N. Y. Macmillan. 1911. \$36.00.

Treatment primarily that of a dictionary, not that of a cyclopedia. Volume 3 is a complete bibliography of the subject.

Hastings, James, ed. *Dictionary of the Bible*. N. Y. Scribner. 1909. \$5.00.

The aim is to provide a complete and independent dictionary of the Bible in a single volume and abreast of the present day scholarship.

Schaff, Philip. The new Schaff-Herzog **Encyclopedia of religious knowledge.** 4 vols. N. Y. Funk. 1912.

Most important general reference book on the subject in English. It is not limited to the Christian religion but includes articles on other religions and religious leaders. It covers the whole field of biblical, historical and contemporary theology, church history and religious biography, including separate articles on all sects, denominations and churches, organizations and societies, missions, doctrines, controversies, etc. Contains excellent bibliographies.

EXERCISE ON SPECIAL REFERENCE BOOKS

1. Who wrote "Lead, Kindly Light," and what was the date of its first appearance? Where can you find a concise statement on music printing?
2. Look up a description of Mount Ararat, and of Jacob's Well.
3. Where can you find an authoritative encyclopedic article on the trial by jury?
4. What is the formula for making a mirror; of sulphuric acid?
5. Would you expect to find a sketch of the life of Abraham Lincoln in the *Dictionary of National Biography*? Why? In what respect does the sketch of Benjamin Disraeli differ in the *Dictionary of National Biography* and the *New International Encyclopedia*?
6. Where would you find a brief outline of Swift's "Gulliver's Travels"?
7. Write the author and title of the poem in which each of the following is the first line:
 - "The groves were God's first temples."
 - "Oh, East is East, and West is West."
 - "God give us men—a time like these demands."
 - "Tell me, where is fancy bred?"
 What reference book did you use to find it?
8. Where can you find a fairly complete bibliography of the writings of John Donne; Philip Massinger; the Elizabethan theatres; Richard Steele?
9. What particular reference book gives the best concise state-

ment of the following: Concordat of 1813; Sixteen of the League of Paris; Mississippi Scheme; Turks' war with Persia, 1623?

10. What is the name of the British minister to Italy? Where can you find a list of the members of the French Academy, known as the Immortals?

Chapter VI

INVESTIGATING A SUBJECT

A careful investigation of any subject puts the resources of a library to their ultimate test, and calls into practice the reader's knowledge of library economy. College students are required, in courses of literature, history, philosophy, government and economics, to prepare written papers or reports on subjects requiring extended reading. A clear vision of what the problem offers and a systematic process of conducting the investigation is essential for best results. A student wishes always to "save time for other things," when a long report is to be done, and frequently seizes upon the first bit of printed material bearing on the subject at hand. At the outset a general survey of the subject should be made and a bibliography or a list of the references in which the material is to be found should be constructed. If a person tries to read ahead blindly and endeavors to do any constructive writing from the notes taken at the same time, neither part of the work seems to be satisfactorily done. In collecting even the briefest list of references a systematic method and procedure saves time and energy, and an orderly arrangement of material increases the value of the list.

A general survey is only a reconnaissance, intended to prepare the way for a careful study of some part of the material thus examined, in connection with class work or private reading. A great library means not so much that the student is to read an enormous amount, as that he is to learn how to select from the mass of books or parts of

books most useful to him; and especially that he may learn how to draw from the sources the material for knowledge or for the confirmation of knowledge gained elsewhere. Thought, selection, discrimination, are most essential to the right use of great collections.

For any serious original article a preliminary investigation is essential in disclosing what phases of it have already been treated, and in what manner. Such a procedure may indicate that a student's work has already been adequately done.

It may prove worth while to enumerate the necessary steps for careful work.

First. Find a statement of the fundamentals of the subject. Consult general reference books such as encyclopedias, etc.

Second. Search for source material. Note authorities given at the end of the articles already found, and consult them to trace further authorities.

Third. Search for whole books dealing with the subjects. Consult the library card catalogue, available catalogues of other libraries, United States Catalogue of Books in Print, 1910, and its annual supplements; English Catalogue of Books; Lorenz, Catalogue Generale de la Librairie Francaise, Kayser, Vollstandiges Bucher-lexikon, etc.

Fourth. Consult books of titles thus found and note references to sources and bibliographies given in them.

Fifth. Search for material appearing as chapters or parts of books. Consult the American Library Association Index to General Literature, 1893, 1901, and 1914.

Sixth. Search for material on the subject appearing in magazines. Consult Poole, Index to Periodical Literature, 1802-1907; Readers' Guide, 1900-date; and Magazine Subject Index, 1907-date.

Seventh. Arrange all material thus found in a systematic bibliography.

If the chapters on "Reference Books" and "Periodical Indexes" have not been carefully studied they should be reviewed at this time. The choice of aids will vary ac-

cording to the subject for which the bibliography is being made.

In making notes of the references found it is customary to make the list on slips or cards. Each reference should be entered on a separate slip, for convenience in adding to and subtracting from material already noted. Later it may be copied on to sheets or into a note-book. Take pains to make each entry accurately and to put it in good bibliographic form. If you fail to make note of some of the essentials of the reference data, for example, the volume, or the pages on which the material is to be found, it may be difficult and even impossible to locate it because of the missing information. Moreover, you may not be able to recall where you obtained this particular reference and it might be out of the question to complete it. An inaccuracy in figures may mean that time will be needed to go over the material a second time. If the slips are cast in a good form as the note is made time for copying them will be saved.

Among bibliographic workers a definite form of entry or bibliographic formula is adopted for uniformity, clearness, accuracy and conciseness. In listing general reference books commonly known by their title, give the title of the book, follow with volume and page separated from each other by a colon, and the place, publisher and date of publication. Thus:

Football. New international encyclopedia. 10:617-25.
New York, Dodd, Mead, 1910.

In the case of a book which is entirely devoted to the subject, list author's name, giving initials, title of the book, place, publisher and date of publication. For example:

Camp, W. Book of Football. New York, Century Co.,
1910.

The formula for indicating a section of a book or a chapter of one indicates the name of the author, title of chapter, and in a parenthesis, following the words "See" or "In," the name of the author of the book, its title, inclusive pages on which material appears, and the place and date of the publication of the book.

Bennett, A. Football in America. (In his *Your United States*, pp. 128-36. N. Y., Harper, 1912.)

It will be remembered that it is important in noting a magazine article to give author's name, title of article, name of magazine, volume and page, and date of the magazine.

Peabody, E. After football what? (In *Harp. W.* 50:56. Ja. 13, '13.)

To bring a definite order to the slips containing notes it is well to arrange them under headings. These divisions must be determined according to the use for which the bibliography is constructed. For the most general purpose these headings will serve:

- I. General Reference Books.
- II. Whole Books on Subject.
- III. Parts of Books on Subject.
- IV. Magazine Articles.
- V. Bibliographies.

In connection with a specific field of study it is frequently best to use a specific division of the material, as, in history:

- I. Sources.
- II. Secondary material.
- III. Contemporary evidence.
- IV. Current evidence.

Under each heading the slips should be alphabetically ar-

ranged. If annotations are made the bibliography will be found to be of more value in consulting the material. If a copy were made on sheets of paper from the slips indicating the references to material as suggested above we should have some such form of a bibliography as this:

THE KORAN

1. GENERAL REFERENCE BOOKS.

Catholic Encyclopaedia. 8:692-4. New York, 1910.
Encyclopedia Britannica. 15:898-906. Cambridge, 1913.

2. SOURCES GIVEN IN REFERENCE BOOKS.

Noldeke, Th. *Geschichte des Quran's*. Goettingen, 1860.
Tisdall. *The Original Sources of the Qur'an*. London, 1905.

3. WHOLE BOOKS.

Benattar, C. *L'Esprit liberal du Coran*. Paris, Leroux, 1905.
Flugel, G., ed. *Corani, textus Arabicus*. New York, 1910.
Haussleiter, H. *Register zum Qurankommentar des Tabari*. Strassburg, Truebner, 1912.

4. BIBLIOGRAPHIES IN BOOKS.

New York Public Library Bulletin. April, 1911, pp. 211-46.

5. PARTS OF BOOKS.

Noldeke, Th. *The Koran*. (In his *Sketches from Eastern history*, page 21. n.p., n.d.)
Smith, H. P. *The Koran*. (In Warner, C. D., *Library of the World's Best Literature*. 15:8707-24. New York, 1897.)

6. MAGAZINE ARTICLES.

Gray, G. B. *Comparative criticism of Semitic Literature*. (In *Contemporary Review*. 92:44-101. Jl. '07.)
Weir, T. H. *Higher criticism and the Koran*. (In *Living Age*. 253:24-32. Ap. 6, '07.)

(Only sufficient titles have been listed to show alpha-

betical arrangement, and no completeness has here been attempted.)

The following form of a bibliography, frequently used in dealing with an individual, illustrates the same bibliographic formulas with a different arrangement of headings. The compiler probably arranged his slips, at an earlier stage in the development of the list, according to "whole books" and "periodicals." But once the material had been completely covered he became interested in grouping all references according to the subject upon which they bore rather than the sources in which each was discovered. Thus he groups *the works* of the dramatist together, although one is a "whole book" and the other two here noted are "periodicals." This is a subject arrangement rather than a form arrangement.

ARTHUR SCHNITZLER. AUSTRIAN DRAMATIST.

I. WORKS.

Anatol, a sequence of dialogues, paraphrased for the English stage by Granville Barker. London. Sidgwick & Jackson. 1911.

Light o' Love, translated by B. Q. Morgan. (In the drama, No. 7:14-77. August, 1912.)

Woman with the Dagger; English translation. (In The International. 4:92-4. November, 1911.)

II. PORTRAITS.

(In Bookman. 25:7. Mar., '07.)

(In Current Literature. 39:552. Nov., '05.)

III. PRODUCTIONS.

Liebelei. Produced at the Irving Place Theatre, N. Y., Nov., '12. (In N. Y. Dramatic Mirror. 68:7. Dec. 4, '12.)

Light of Love. Produced at His Majesty's Theatre, London, May, 1909. (In Illustrated London News. 134:740. May 22, '09.)

IV. CRITICISM.

Arthur Schnitzler, the Austrian Hauptmann. (In Current Literature. 39:552. Nov., '05.)

Plays of Arthur Schnitzler. (In *Bookman*. 25:7. Mar., '07.)

To appreciate the different construction in form and nature of material included to meet different uses to which bibliography is applied, the student may with profit study the following. Each is representative of a class.

Bibliography for Sir Walter Scott, in **Cambridge history of English literature**. 12:413-23. The main headings are:

1. Manuscripts, 2. Poetry, 3. Novels, 4. Miscellaneous works, 5. Correspondence, 6. Works edited by Scott, 7. Biography and criticism. The arrangement of material under Nos. 1-6 is chronological according to date of publication, and No. 7 is arranged alphabetically according to authors of the articles.

Hammond, E. P. Chaucer: a bibliographical manual. This manifests the results of a scholarly research. It is a volume of nearly six hundred pages with references, well digested abstracts, independent criticisms, and judiciously selected extracts dealing with all phases of Chaucer's life and works, as well as the works which have been printed with Chaucer's or attributed to him. The index is of great assistance.

The bibliographies published by the Library of Congress, for example: **Griffin, A. P. C. Select list of books on reciprocity with Canada**. 1907. This is divided into two parts, 1. An alphabetical list of authors and titles of books on the subject, and, 2. Articles in periodicals arranged chronologically.

Sonneck, O. G. T. Catalogue of opera librettos printed before 1800. This is an extensive bibliography published in two volumes: 1. A title catalogue of the librettos with full imprint and annotations, 2. An author list, composer list, and aria index.

Brockett, P. Bibliography of aeronautics, published as Smithsonian miscellaneous collections, vol. 55. In a volume of nearly a thousand pages the compiler has crowded references to over 13,500 titles. The matter is arranged alphabetically by authors, subjects, and titles, and the libraries in which each may be found is indicated.

Black, G. F. **List of works** in the New York Public Library relating to Scotland, published in the library **Bulletin**, 1914, Jan. to Dec. This is an inclusive bibliography indicating the scope and resources of a public library collection.

New York State Library. Best books of 1915.

This bibliography is arranged under the headings of the Dewey classification, and is prepared to meet needs in book selection. Each entry gives among other things author, title, publisher, price, and references to the best available reviews and a descriptive or critical note. It points out the distinguishing characteristics of books on the same or closely related subjects. This is a professional or scientific list of carefully chosen material for a specific purpose.

To summarize: in investigating a subject time is saved and better results produced if a survey of the subject in general is made at the outset. Before any constructive writing is done the printed material available should be examined, and careful notes made as to its location and character so that it may be readily found again. For convenience such notes made on slips may be arranged in a bibliographic form helpful to the writer when the actual construction of the work begins.

EXERCISE FOR INVESTIGATING A SUBJECT

A professor has assigned a carefully prepared thesis or report on one of the following subjects: Shakespeare's Heroines; Pres. Cleveland's relation to the Venezuelan Boundary Question; Rural Credits; The New England Country Church and Farm Boy; An Outline History of the British Charter Colonies of North America; Present Position of Woman in China; The Making of Acetylene Gas; The Devonian Period.

Make a bibliography of the subject, casting it in the form of one of the examples given in this chapter, taking particular care of the formula. For this exercise use only two or three titles under each heading.

128082

Binder
Gaylord Bros. Inc.
Makers
Syracuse, N. Y.
PAT. JAN 21, 1908

025.
5677
L913B

Lowe, J.A.
Books and libraries.

**PLEASE DO NOT REMOVE
CARDS OR SLIPS FROM THIS POCKET**

**UNIVERSITY OF TORONTO
FACULTY OF LIBRARY SCIENCE**

Discarded